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B60R 25/00

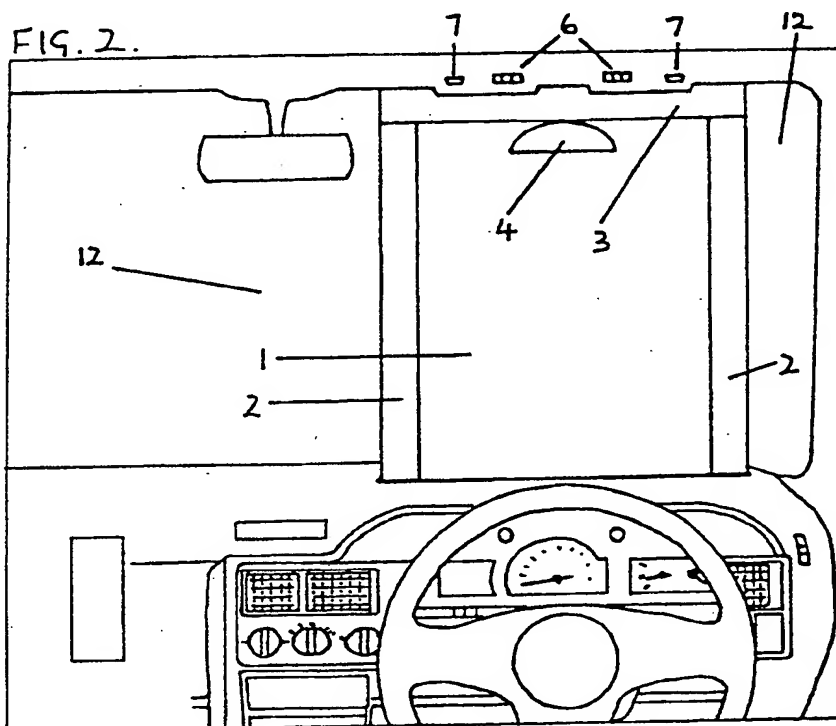
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GB 2091658 A GB 0384578 A GB 0375801 A

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(54) Vehicle anti-theft device

(57) A vehicle with a built in anti-theft device comprising an obscuring screen, an obscuring screen storage mechanism and an obscuring screen locking mechanism. The obscuring screen, which is attached to the obscuring screen storage mechanism, is deployed by holding the finger grip 4 and pulling upwards until the locking rings are inserted in the lock openings. Once deployed the obscuring screen denies vision through that part of the vehicle windscreen in front of the driver position and is also clearly visible from outside thus deterring theft.



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FIG. 1.

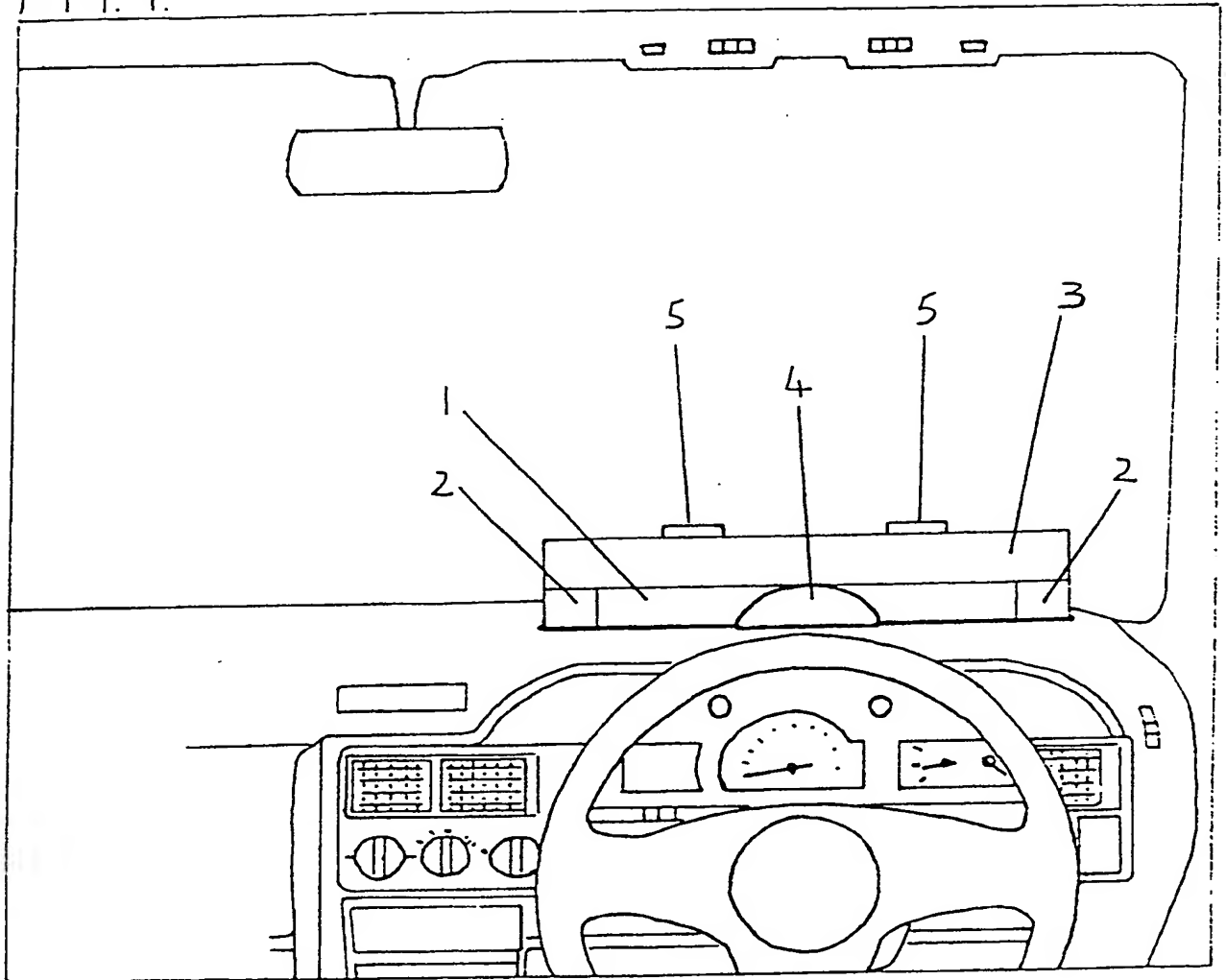


FIG. 2.

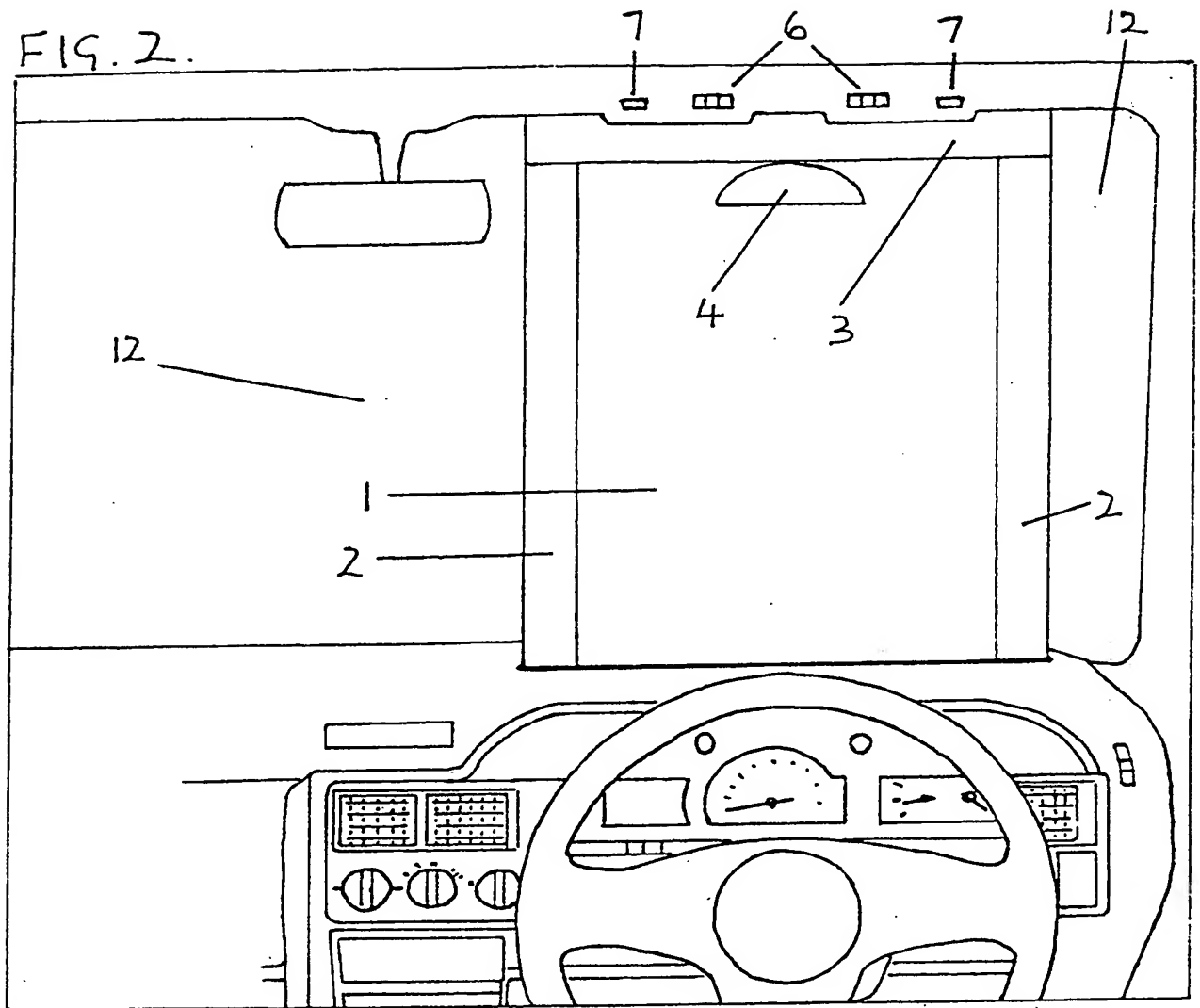


FIG. 3

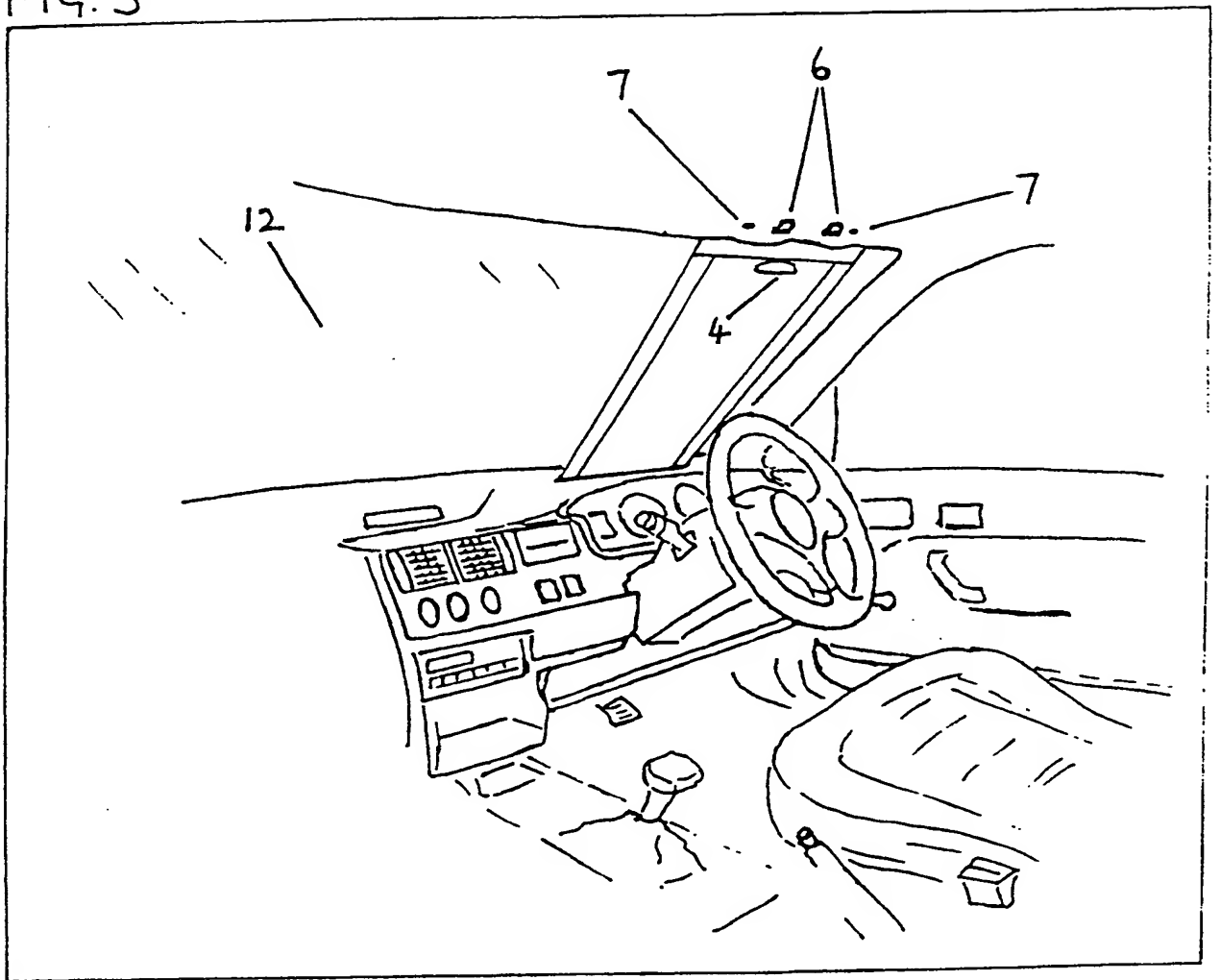


FIG. 4

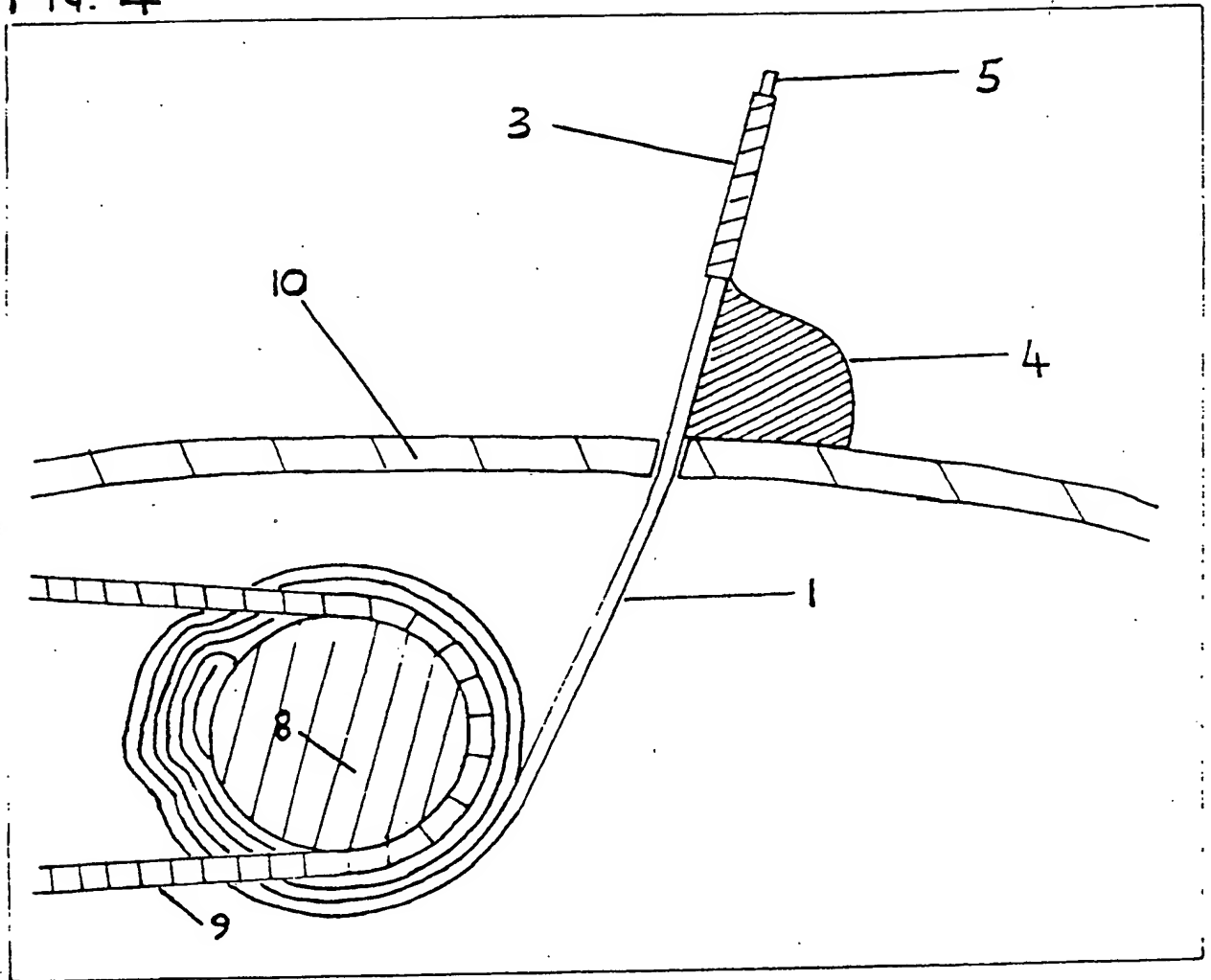
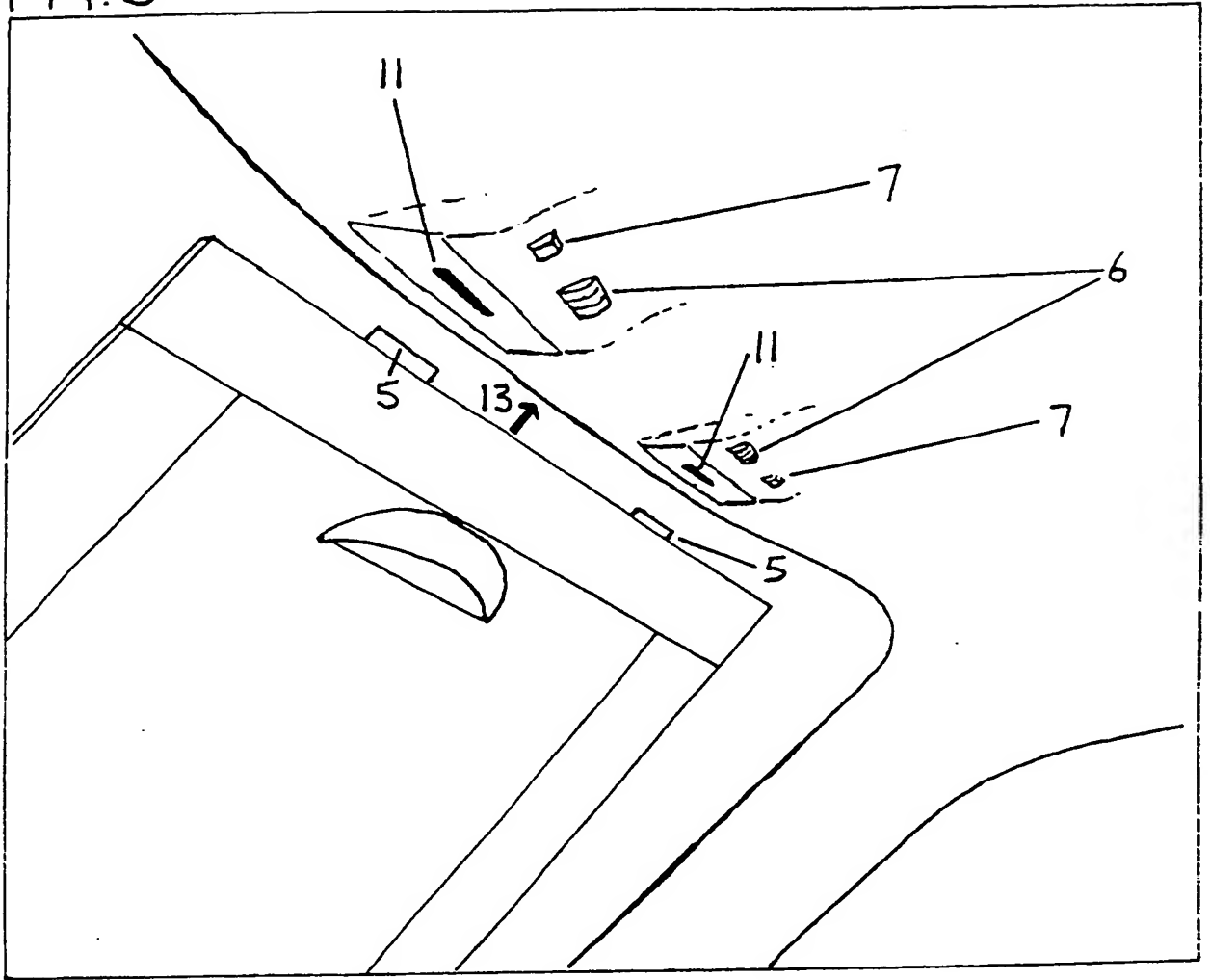


FIG. 5



## VEHICLE ANTI-THEFT DEVICE

This invention relates to a vehicle including an anti-theft device.

Each year the incidence of vehicle theft has continued to reach record levels, this despite the various vehicle anti-theft devices currently in use. The problem has reached such epidemic proportions that most recently the latest spate of vehicle thefts has been caused by persons wishing to steal a vehicle not for financial gain but simply for "fun" or as often dubbed by the media "joy-riding". Many of the anti-theft devices already currently in use are not obvious to the onlooker and do not necessarily deter initial entry into the vehicle.

The primary objective of the present invention is to provide an anti-theft device which can clearly be seen from outside, thus providing an even greater deterrent to the would be thief and particularly to any potential "joy-rider".

According to the present invention a vehicle including an anti-theft device which comprises an obscuring screen, an obscuring screen storage mechanism and an obscuring screen locking mechanism. The obscuring screen is attached to and rolled up on the obscuring screen storage mechanism which is located within the interior of the vehicle dashboard. The obscuring screen pulls out through the dashboard and extends to lock into the obscuring screen locking mechanism, located above the vehicle windscreen, so as to obscure vision through that part of the vehicle windscreen in front of the driver position.

The obscuring screen comprises flexible material, to allow storage on the obscuring screen storage mechanism and comprises non-transparent material supported by thick bands of non-transparent material on each vertical edge of the screen and throughout the length of the screen in such a way as to make the screen taut throughout. The obscuring screen comprises material which is tear and cut resistant. The leading horizontal edge of the obscuring screen comprises a rigid plate of metal or other material with on its top edge two elongated and rectangular locking rings. The obscuring screen also has a half-cup shaped finger-grip attaching, below the rigid plate, on the surface of the security screen facing towards the driver position.

The obscuring screen storage mechanism comprises a spring-loaded roller drum located within the interior of the vehicle dashboard and out of vision of any persons inside or outside the vehicle and fixed with brackets to the vehicle bodywork between the vehicle instrument panel box and the vehicle engine compartment. The bottom horizontal edge of the obscuring screen attaches along its entire width to the spring-loaded roller drum.

The obscuring screen locking mechanism comprises one or more number combination locks in position immediately next to the top of the vehicle windscreen and fixed to the front edge of the vehicle roof and therefore directly in line with and above the driver position. The number combination locks are retained within the roof fabric of the vehicle and the lock openings face towards the vehicle windscreen in a position to receive the rectangular locking rings on the top edge of the obscuring screen. The combination lock number wheels and release studs are exposed through the roof fabric to allow access.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawings in which:

Figure 1 is a diagrammatic view of the inside of a vehicle including a first embodiment of the obscuring screen part of the anti-theft device in accordance with the invention, shown in an unlocked position;

Figure 2 is a diagrammatic view of the inside of a vehicle including the obscuring screen part of the anti-theft device deployed in a locked position;

Figure 3 is a perspective of the inside of a vehicle showing the obscuring screen part of the anti-theft device deployed in locked position;

Figure 4 is a diagrammatic side-on profile of the security screen storage mechanism part of the anti-theft device with the obscuring screen attached in unlocked position;

Figure 5 is a perspective of the interior of a vehicle showing the obscuring screen locking mechanism part of the anti-theft device in position immediately next to the top of the vehicle windscreen and fixed to the front edge of the vehicle roof with the leading edge of the security screen shown in close proximity.

In figure 1 of the drawings the obscuring screen part of the anti-theft device comprises non-transparent material 1 supported by thick bands of non-transparent material 2 with a rigid plate 3 and a half-cup shaped finger grip 4. The obscuring screen is shown in unlocked position with the rectangular locking rings 5 visible on the top edge of the rigid plate. In this position only a small section of the non-transparent material, together with the rigid plate, the half-cup shaped finger grip and a small section of the non-transparent material are visible above the surface of the vehicle dashboard.



Figures 2 and 3 show the obscuring screen fully deployed with the rectangular locking rings no longer visible having been locked into the obscuring screen locking mechanism. In order to deploy the obscuring screen the half-cup shaped finger grip 4 is held and raised upwards in the direction of the obscuring screen locking mechanism, causing the obscuring screen to unwind from the obscuring screen storage mechanism. When in locked position the obscuring screen is held firmly against the tension provided by the spring-loaded roller drum and in such a position obscures vision through the vehicle windscreen 12. The visible parts of the obscuring screen locking mechanism are the combination lock number wheels 6 and the release studs 7.

In figure 4 there is shown an end-on profile of the obscuring screen storage mechanism which comprises a spring-loaded roller drum 8 secured by bracket 9. Attaching to and stored on the spring-loaded roller drum is the obscuring screen 1 which passes through the vehicle dashboard surface 10 above which the remainder of the obscuring screen, the rigid plate 3, the half-cup shaped finger grip 4 and rectangular locking ring 5 are visible above the vehicle dashboard surface. The half-cup shaped finger grip resting against the vehicle dashboard surface and the tension applied by the spring-loaded roller drum act together to hold the obscuring screen secure in its unlocked position.

Figure 5 illustrates the visible parts of the obscuring screen locking mechanism, comprising the combination lock number wheels 6 and the release studs 7, together with the lock openings 11. The obscuring screen part of the anti-theft device is moved towards the lock openings 11 in the direction of the arrow 13 until the rectangular locking rings 5 are fully inserted in the lock openings 11.

## CLAIMS

1. According to the present invention a vehicle including an anti-theft device which comprises an obscuring screen, an obscuring screen storage mechanism and an obscuring screen locking mechanism. The obscuring screen is attached to and rolled up on the obscuring screen storage mechanism which is located within the interior of the vehicle dashboard. The obscuring screen pulls out through the dashboard and extends to lock into the obscuring screen locking mechanism, located above the vehicle windscreen, so as to obscure vision through that part of the vehicle windscreen in front of the driver position.
2. A vehicle including an anti-theft device according to claim 1 wherein the obscuring screen comprises non-transparent flexible material.
3. A vehicle including an anti-theft device according to claim 1 or 2 wherein the obscuring screen comprises non-transparent flexible material having on the leading horizontal edge of the obscuring screen a rigid plate with one or more locking rings.
4. A vehicle including an anti-theft device according to claim 1 or 2 or 3 wherein the obscuring screen comprises non-transparent flexible material having on the leading horizontal edge of the obscuring screen a rigid plate with one or more locking rings and having a finger-grip attaching below the rigid plate.
5. A vehicle including an anti-theft device according to claim 1 wherein the obscuring screen storage mechanism is a spring-loaded roller drum.
6. A vehicle including an anti-theft device according to claim 1 wherein the obscuring screen locking mechanism comprises one or more number combination locks.
7. A vehicle including an anti-theft device according to claim 1 or 6 wherein the obscuring screen locking mechanism comprises one or more number combination locks having accessible combination lock number wheels.
8. A vehicle including an anti-theft device according to claim 1 or 6 or 7 wherein the obscuring screen locking mechanism comprises one or more number combination locks having accessible combination lock number wheels and having accessible combination lock release studs.
9. A vehicle including an anti-theft device substantially as hereinbefore described with reference to and as illustrated in the accompanying drawings.

Relevant Technical Fields

Search Examiner  
COLIN THOMPSON

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(ii) Int Cl (Ed.5) B60R 25/00

Date of completion of Search  
21 FEBRUARY 1994

Databases (see below)

(i) UK Patent Office collections of GB, EP, WO and US patent specifications.

Documents considered relevant  
following a search in respect of  
Claims :-  
1-9

(ii) ONLINE DATABASE: WPI

Categories of documents

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| Y: Document indicating lack of inventive step if combined with one or more other documents of the same category. | E: Patent document published on or after, but with priority date earlier than, the filing date of the present application. |
| A: Document indicating technological background and/or state of the art.   | &: Member of the same patent family; corresponding document.   |

Category	Identity of document and relevant passages	Relevant to claim(s)
X	GB 2091658 A (CARTER) see especially page 1 lines 39-45	1,2
X	GB 0384578 A (WENSLEY)	1,2,3,5
X	GB 0375801 A (KAATZ) see Figure 5	1,2,3,5

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